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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/051,705

01/17/2002

Christian Sauska

P-2410

1433

7590

04/23/2003

Paul A. Fattibene
Fattibene and Fattibene
2480 Post Road
Southport, CT 06490

EXAMINER

LEYBOURNE, JAMES J

ART UNIT

PAPER NUMBER

2881

DATE MAILED: 04/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/051,705

Applicant(s)

SAUSKA ET AL.

Examiner

James J. Leybourne

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-10, 12 and 17 is/are allowed.
- 6) ☒ Claim(s) 1-5, 11, 13-16 and 18-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 March 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 11, 13-16 and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wyndham (USPN 3791790) in view of Shurgan (USPN 3988633).

Regarding claims 1 and 22, Wyndham discloses a purification device for fluids (Fig. 2, columns 4 lines 65-69 and column 5, lines 1-8) comprising a purifier chamber **13**, which is an annular space in the illustrated embodiment, where the water being treated is forced through the thin laminar annulus surrounding UV lamp **16**. Untreated fluid enters the purifier housing **13** through the inlet nozzle **12** where it travels through a spiraling path formed by the annular space between the cylinder wall of chamber **13** and a concentric transparent cylinder **18** as guided by a spiral distributor **20** (Fig 4a). Wyndham does not teach a germicidal lamp comprising a non-uniform contour capable of creating turbulent flow.

Shurgan discloses a low-pressure discharge lamp, particularly a fluorescent lamp, having a plurality of separate and continuous grooves along its length (figures 4 and 5). It would be obvious to one of ordinary skill in the art at the time of the invention that the cylindrical low-pressure discharge lamp and spiral distributor of Wyndham could be replaced with a germicidal lamp with a non-uniform surface contour, namely, a cylindrical lamp, having a plurality of separate and continuous grooves along its length as taught by Shurgan. This would be desirable because the grooved lamp would be much easier to clean than the lamp and spiral distributor of Wyndham.

Regarding claims 2-4, 18 and 19, Shurgan teaches lamps with one or more helicoidal grooves (column 1, lines 11-18).

Regarding claims 5, 15 and 20, the use of fluorescent lamps as germicidal lamps is well known in the art.

Regarding claims 16 and 21, it is well known in the art that turbulent flow in the air enhances the effectiveness of germicidal lamps, thus, baffles or fans are used to create turbulent airflow. As discussed under claim 1 above, Wyndham teaches a purification device for fluids where the fluid travels through a spiraling path in order to provide better exposure of the fluid to a germicidal lamp. It would be obvious to one of ordinary skill in the art at the time of the invention that, since air is a fluid, use of a germicidal lamp with a non-uniform surface to generate a turbulent flow off air around the lamp would also be desirable in an air purification system.

Allowable Subject Matter

3. Claims 6-10, 12 and 17 are allowed.

Reasons For Allowance

4. The following is an examiner's statement of reasons for allowance:

Regarding independent claims 6, 12 and 17, lamps having non-uniform surfaces (generally referred to as envelopes) are known in the prior art. However, the prior art fails to teach or fairly suggest a germicidal lamp comprising a cylindrical ultraviolet lamp with an envelope having a non-uniform surface enclosing the cylindrical ultraviolet lamp. The dependent claims 7-10 are allowed by virtue of their dependence on claim 6.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James J. Leybourne whose telephone number is (703) 305-7067. The examiner can normally be reached on M-F 9:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R Lee can be reached on (703) 308-4116. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9319 for regular communications and (703) 872-9317 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-7060.

JJL

April 10, 2003


JOHN R. LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2550